REMARKS

By this amendment, Applicants have amended the claims to more clearly define their invention. In particular, claim 1 has been amended to recite that stage c) is carried out at a temperature ranging between –40°C and 20°C. See, page 8, lines 18-20 of Applicants' specification. Claim 5 has been amended to depend from claim 4 so as to eliminate the indefiniteness problem noted by the Examiner in numbered section 6 of the Office Action. Applicants have also added new claims 8-15 to further define their invention. In particular, claims 8-10 correspond to the claims 5-7, respectively, but the limit the treatment in steps f) and g) to at least the liquid affluent obtained in stage c). Claims 11-15 define the preferred temperature and pressure ranges for stage c) as disclosed on page 8, lines 18-20 of Applicants' specification.

In numbered section 2 of the Office Action, the Examiner alleges the Information Disclosure Statement filed December 4, 2003 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP 609 because the entries listed (presumably on the form PTO/SB/08a) failed to identify the country or Patent Office for the foreign patent documents, as required by 37 CFR 1.98(b)(4). The Examiner alleges that the date of any re-submission of any item of information contained in the Information Disclosure will be considered the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, the Examiner referring to MPEP 609C(1). While Applicants are submitting herewith a Supplemental Information Disclosure, including a revised form PTO/SB/08a identifying the country code of the foreign patent documents, it is submitted the Examiner is incorrect as to his allegations concerning the date of re-submission being the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement.

In the first place, while the form PTO/SB/08a did omit the country code for the

foreign patent documents, the country code was clearly evident from the Preliminary Search Report and the translation thereof. Moreover, the country code was clearly evident from the documents themselves which clearly show that the foreign patent documents are French patent documents. The Examiner is assuredly aware from the Preliminary Search Report, the English translation thereof and the documents themselves that the country code for the foreign patent documents is "FR." In an effort to advance the prosecution, it would have taken the Examiner no more than a few seconds to revise foreign PTO/SB/08a to provide the country code FR for the French patent documents.

Moreover, the list required by 37 CFR 1.98(b) need not necessarily be on form PTO/SB/08a. The English translation of the Preliminary Search Report itself constituted a proper list as required by 37 CFR 1.98, since this list properly identified each item of information as required by 37 CFR 1.98(b), making form PTO/SB/08a unnecessary. Therefore, the Information Disclosure Statement filed December 4, 2003 in fact complied with 37 CFR 1.97 and 1.98 and included a list properly identifying each item.

Finally, the Examiner's reference to MPEP 609 C(1) is an error since the passage to which the Examiner refers is applicable only when the Information Disclosure Statement does not comply with the requirements based on the time of filing the Information Disclosure Statement, whereas the Examiner alleges no compliance with the content requirements. In fact, MPEP 609 B(6) is the proper MPEP section relating to noncompliance with the content requirements of 37 CFR 1.98. As indicated in MPEP 609 B(6), if a bona fide attempt is made to comply with the content requirements, but part of the required content is inadvertently omitted, as here, additional time may be given to enable full compliance. Therefore, to the extent the Information Disclosure Statement did not comply with the content of requirements of 37 CFR 1.98, the Examiner should have given additional time for

Applicants to comply. Accordingly, while Applicants are submitting herewith a Supplemental Information Disclosure Statement with authorization to charge the undersigned's deposit account the $180 fee set forth in 37 CFR 1.17(p), it is submitted the fee should not be charged.

Claim 7 stands rejected under 35 U.S.C. 112, first paragraph, the Examiner alleging the disclosure to not be enabling for the subject matter of claim 7. Applicants traverse this rejection and request reconsideration thereof.

The subject matter of claim 7 is clearly described in Applicants' specification; in fact, the Examiner has not alleged otherwise. Specifically, at page 9, lines 20-22 of Applicants' specification, it is disclosed that "the gas phase obtained in stage g) can be fed into the top of the distillation column of stage f) separately from the liquid phase obtained in stage g)." Since the specification is directed to those skilled in the art and since those skilled in the art would know to use known separating means, for example a separating drum, for separating the effluent coming from the heat exchanger 52 into gas and liquid, Applicants' specification need not provide any further details concerning the separation. That is, one skilled in the art, based on the knowledge availability to that person, would be able to make and use the invention, including separating the gas phase from the liquid phase. Therefore, Applicants' specification does enable the invention set forth in claim 7 in the manner required by 35 U.S.C. 112, first paragraph.

In view of the foregoing amendments to claims 5 and 6, it is submitted these claims now comply with the requirements of 35 U.S.C. 112, second paragraph. Therefore, the rejection of these claims under 35 U.S.C. 112, second paragraph, in numbered section 6 of the Office Action should be withdrawn.

Claims 1-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0104438A1 (Cadours et al.) in view of U.S. Patent Publication No. 2002/0062735A1 (Lecomte et al.). Applicants traverse this rejection

and request reconsideration thereof.

The present invention relates to a method for treating a natural gas containing hydrocarbons, hydrogen sulfide and water. According to the present invention, the following stages are carried out: a) cooling the natural gas so as to condense water and recovery gaseous effluent, b) distilling the gaseous effluent obtained in stage a) so as to obtain a liquid phase and a gas phase, and cooling the gas phase so as to obtain a condensate and a gaseous effluent depleted in hydrogen sulfide and in water, and c) contacting at least part of the gaseous effluent obtained in stage b) with a first physical solvent so as to obtain a liquid effluent and a treated gas depleted in hydrogen sulfide. As now set forth in claim 1, stage c) is carried out at a temperature ranging between -40°C and 20°C.

The Cadours et al. publication discloses a process using two absorption sections for treating a natural gas containing carbon dioxide and hydrogen sulfide as well as mercaptans, COS and/or CS_2. According to Cadours et al., the process includes washing the gaseous hydrocarbons desorbed upon expansion of the solvent from the first absorption section with the solvent from the second absorption section. In paragraph 0046, it is disclosed that the temperature of the solvents introduced through lines 6-8 can range between 20 and 70°C. On the other hand, according to the present invention, the gas is contacted with a physical solvent at a temperature ranging between -40°C and 20°C.

By contacting, at step c) the gaseous effluent with a physical solvent at low temperature (lower than 20°C), the gaseous effluent will be depleted in hydrogen sulfide without being charged in water. The gaseous effluent, depleted in hydrogen sulfide, is depleted in water although the physical solvent is an aqueous solvent, because the contacting at step c) is performed at low temperature. The use of a physical solvent allows working at low temperature (between -40°C and 20°C) without forming hydrates of methane. This is not disclosed in Cadours.

The Lecomte et al. publication discloses a process for pretreating a natural gas containing acid gases, but does not remedy the basic deficiencies of Cadours noted above.

Accordingly, it is submitted the presently claimed invention is patentable over the proposed combination of Cadours et al. and Lecomte et al.

Claims 6 and 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cadours et al. in view of Lecomte et al. and further in view of U.S. Patent Application Publication No. 2002/0059865A1 (Lemaire et al.). Applicants traverse this rejection and request reconsideration thereof.

The Lemaire et al. publication discloses a process for treating a gas containing acid gaseous by absorption in a solvent with temperature control. The Examiner has alleged the Lemaire et al. publication teaches a method for treating an acidic gas comprising the steps of heating the effluent from a column C10 in a heat exchanger E1, separating the heated effluent into gas and liquid phases in separating drum B10, and feeding the gas and liquid phases separately into distillation column D1 for the purpose of regenerating solvents in the effluent. However, clearly the Lemaire et al. document does not remedy any of the deficiencies noted above with respect to the proposed combination of Cadours et al. and Lecomte et al.

Accordingly, claims 6 and 7 are patentable over the proposed combination of references, at least for the reason noted above.

Applicants note the Examiner has cited a number of additional documents as being pertinent to the Applicants' disclosure. However, since these documents were not applied in rejecting claims formally in the application, further discussion of these documents is deemed unnecessary.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance of all of the claims now in the application are requested.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus Deposit Account No. 01-2135 (Case: 612.43268X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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Attachments